133
132
241
231
31
433
491
496
505
463
135
361

[For information on the topography, climate, agriculture and commercial crops, irrigation, stock raising, natural resources, production and supply, waterways, railways, and roads of the valleys of the Tigris and Euphrates between the plateau of Asia Minor and the Persian Gulf, discussed as one geographical unit, rather than by political boundary, see, M1 Middle East, cat. 116, 21: Fisher, pp. 340-370.]

[For information on the topography, climate, agriculture, mineral wealth, railways, settlement pattern, productive capacity of the economy, and trade of the Levant coastland, see M1 Middle East, cat. 116, 21: Fisher, pp. 371-414.]

[For information on the topography, occupations and relative productivity of the desert plateau, and of the Arabian Peninsula as a whole, see M1 Middle East, cat. 116, 21:Fisher, pp. 427-449.]

irrigated, and the Jagjag and the Khabur could never irrigate such an area. Irrigation is the second factor involved in determining whether the land is cultivable or not.

II. Qada of Dijla

Turning to the Qada of Dijla, we find that the entire region has sufficient rainfall, two rivers and many springs in the villages. In fact, the abundance of rainfall in the northeastern part of the Qada known as Jazirat ibn Amr, makes the growing of summer crops hazardous because the hot, dry period is too short.

The lower part of the Qada, from Tal Koshak to Dāmir Kapu, is similar to the Qada of Qamishli. The land is flat and precipitation, though relatively abundant, does not compare with the more mountainous regions of Dijla.

III. Qada of Qamishli

The Qada of Qamishli with the lower part of Dijla, extends from Tal Koshak on the Iraki border, comprising the cities of Qamishli, Amuda, Derbassiya, to Ras el Ain on the Khabur which belongs administratively to Hassakeh. This region, some 200 kms. in length along the railway line and the Turkish border, is the best developed and most productive of the Jazirah.

In point of cultivability, it is divided into two parts:

1. A region bounded by the railway and a line running about forty kms. south and parallel to it, from the river Rad to Tal Brak to Tal Tamr on the Khabur.
2. The region south of this fictitious line.

This division is based on the amount of rainfall and the experience of farmers during the last twelve years. It is certain that the further one goes from the Turkish mountains, the less is the rainfall. That is why Tal Brak, about 40 kms. south of Qamishli, is considered the last profitable area for rain-fed farming. In the last few years when tractor cultivation expanded greatly and lands became scarce, new farmers cultivated the lands south of the parallel line down to Hassakeh and to a point about 40 kms. north of Rakka, and learned at their own expense that it does not pay unless the crop is barley and is carried on as a sideline to a principal enterprise in the northern regions.

A vast area lies south of the Rad to the Iraki border toward the Sinjar Mountains. Farmers have been prevented from cultivating

it because of bloody disputes between the Shammar and Tay tribes. The land is poorer than in the north and the rainfall is much scarcer. Farmers who managed to plant barley on the fringes of the disputed land in the bad year of 1951 lost heavily. It is improbable that an average year would give much hope of profit.

Ras el Ain, though on the railway line, has less rainfall than Kamishli, Amuda, or Dirbasiya because the mountains recede north into Turkey. Dry farming is profitable less than 20 kms. south of Ras el Ain.

IV. The Khabur Valley

The Khabur river, though rising in Turkey, is fed by springs in Ras el Ain and flows southward for about 150 kms. within the Jazirah before it enters the Mohafaza of the Euphrates below Markada.

For about 20-30 kms. below Ras el Ain, the land is used for cereals, mainly barley, with varying degrees of success. But south of this area and down to Hassakeh, dry cultivation becomes risky. South of Hassakeh and to the east and west, dry cultivation becomes entirely out of the question because rainfall, already insufficient at Hassakeh, falls off sharply.

The inadequate rainfall is offset to a certain extent by the possibility of irrigation from the Khabur. Traces of old dams are apparent in several places, and canals which carried the waters from the dams are visible. History and legend leave no doubt that the valley was much more extensively exploited in former times than it is now.

Recently, when the price of rice rose during the War, farmers from the cities of Jazirah in search of irrigated land, began renting lands along the Khabur and installing motors and pumps. The necessary outlay of capital for any project of adequate size was substantial, not less thanLS 150,000, and the price of rice fell after 1946, so that perhaps not more than fifty irrigation projects existed up to 1949. It remained for the cotton boom of 1951 to boost this number to around 200 pumps.

The average size of pumps is 8" and the area irrigated by a pump of this size is around 500 dunums (125 acres). On some projects, where land is available, this area for summer crops is supplemented by an area twice this size in wheat and barley. But lands on both sides of the river rise steeply and rarely can an owner of an irrigation project find enough lands to use the pumps

a. The Region of Deirik

241 In the region of Deirik, the Zarkan river and numerous springs
H90 in the villages make irrigation possible over vast areas. The region
began to be developed recently when the road was partly constructed.
312 Rice is an old staple, but in the last two years it have given place
to cotton. However, rice may resume its former place since cotton
diseases have become so widespread.

b. The Jarrah

The Jarrah river flows through Kubur el Bid and irrigates the country around it. Its waters were used for rice plantations, and recently for cotton. In winter its waters flow into the Rad.

c. The Jagjag

● 133 The main river of northern Jazirah is the Jagjag. Its sources are about thirty kilometers north of Kamishli, in a gorge in Turkey. It flows through Nisibin and Kamishli, crosses the Jazirah plain and empties in the Khabur at Hassakeh. Its total length is about 100 kms. and its average flow is 3 cubic meters per second.

3121 In Turkey and Kamishli, the river has several beds. The Turks,
425 unable to exploit it fully in their country because of its short flow there, follow the practice of changing the river from bed to bed in the summer months, so that farmers in Jazirah do not know when the water will be available to them. This uncertainty has lead the villages which have a right to the water to sell their rights for one or more years to individuals on good terms with the Turkish authorities. These individuals in their turn bribe the Turks to direct the waters in the bed which leads to their lands. One family in particular has obtained a sort of monopoly on the waters of the Jagjag in Qamishli. The Asfar-Najjars buy the water rights from the villages for nominal sums and then try to reach an understanding with the Turks. Since they have one or two competing groups in Qamishli, the Turks usually get paid by both parties and satisfy none entirely. The Asfars manage however to get the biggest share.

3121 Such an unstable situation does not lead to steady irrigation
development along the lines of orchard planting. The farmer is
241 lucky if he can grow one crop of rice or cotton with the present

fluctuations in water flow. Up to 1950, all the water of Jagjag was used for growing rice. In 1950-51, more emphasis was given to cotton. This year it is half cotton and half rice. 312 241

The Turks started a project for diverting all the waters of the Jagjag from Syria to Turkey. They began building tunnels to carry one quarter of the waters cast above Kubur el Bid, and the rest to the plains above Amuda and Dirbassiya. The Syrian Government objected and negotiations began in Ankara. The Syrians believe that they have reached an understanding with the Turkish authorities to divide the river waters equally. The Turks did not sign the agreement, claiming that they want a full agreement on water rights covering all common rivers and especially the Orontes. They are afraid that Syria might use all the waters of the Orontes in its irrigation projects. Since Syria holds this arm, the Jagjag dispute will be solved equitably. 312 648

It is difficult to estimate the area irrigated yearly by the Jagjag. The waters are used only for summer crops, and last year about thirty thousand dunums were planted to cotton. When the plantation is rice the area is nearer to ten thousand dunums. There is of course always a certain amount of land devoted to vegetable growing for the needs of the city. 312 241

d. Underground Water

Recently a few enterprising farmers tried to solve the problem of dependency upon Turkey for irrigation water by digging for water on their own lands. An Armenian outfit from Aleppo with a boring machine of local construction dug several wells in the region of Qamishli and Amuda. Three of the wells in the villages of Tal Ahmad and Tal Anbar near Kamishli were successful. Water to run a 4-inch pump was found at a depth of 18 meters. The other holes around Amuda were not so successful. Water was not found at a depth of 70 meters. These experiments are of course inconclusive and sufficient underground water may be found to be abundant in Jazirah. Further studies are needed. 312

a. The Khabur

The largest source of irrigation water in Jazirah is undoubtedly the Khabur. Its average flow is 52 cubic meters per second which 132

133 makes it the biggest river in Syria after the Euphrates. A short description of the Khabur valley was given earlier and the great possibilities of the river remain undeveloped. Unlike the Euphrates, especially in its lower reached, the Khabur valley is narrow. The alluvial plain does not extend more than five hundred meters on each bank in most places and then the land rises to a height of 10-50 meters over a distance of severl kilometers.

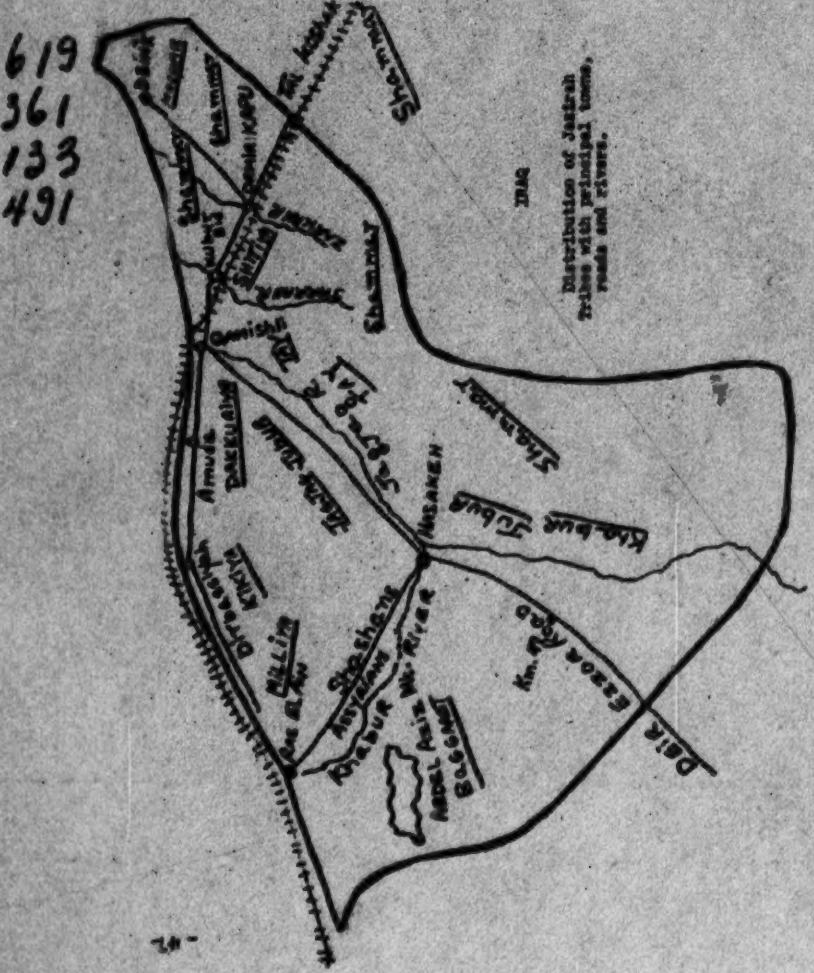
812 406 The alluvial plain along each bank has been more or less irrigated and planted by primitive methods such as the kard and the naqourah or dulab since old times. The kard can irrigate about fifteen dunums and the naqourah, if in good condition, can produce a flow of less than two inches of water and raise it to a height of a maximum six meters which is the diameter of the wheel. More prosperous Bedouins combine two or three naqourahs on the same axis and got a flow of about 3-5 inches. The naqourah is evidently a cheap way to raise water, but its construction is costly. Assuming that a Bedouin wants to build a naqourah on a new site, he has to erect a sort of a dam with stones on about half the river's width to raise the river's level and direct its flow towards his naqourah. Since stone is not abundant along the Khabur and has to be carried long distances, it becomes the job of specialized carpenters to construct the wheel, erect its supports, and balance it. This may cost another LS 1,500. 465 The carpenter who constructs the wheel or naqourah becomes responsible for its maintenance and is paid yearly 11 percent of the yield of the land irrigated in lieu of wages.

2441 The staple crops of the Khabur were formerly wheat in winter and sorghum in summer. Sorghum was preferred to every other summer crop because it provides food for both man and beast. Lately, the naqourah peasants began planting sesame and in the last two years cotton, but reverted this year to sorghum and sesame as the main summer crops.

711 2441 427 Unlike the Kurdish or even the Bedouin peasant of northern Jazirah, the Khabur peasant is very poor and primitive. Rarely does he own one cow to use for plowing. Usually two or more farmers join to provide one team. For this reason the strip of land which he can cultivate for wheat or sesame does not exceed 20-30 dunums, of which half the yield goes to the owner of the land who provides water. This is to compare with 250-300 dunums cultivated by the Kurdish farmer, of which he has to pay only the rent of the combine for the harvest.

6: Government of Syria--47 G-4 (no date) 1952 MD1 Syria MD1

619
361
• 133
491



7:Lewis 3-5 (ca. 1940-45) 1948 MDI Syria MDI

MALARIA, IRRIGATION, AND SOIL EROSION IN CENTRAL SYRIA

NORMAN N. LEWIS

THIS study of the Selemiya region of central Syria had its origin in a modest wartime public-health program. Hundreds of patients suffering from malaria in the villages of this district were regularly treated by a mobile clinic, and it soon became obvious that this work had to be supplemented if not replaced by swamp drainage and other measures of malaria control. The necessary investigations showed that soil erosion in the hills in the east of the region was partly responsible for the swamps on the plain. The swamps themselves were frequently associated with ancient irrigation works. Thus various problems of the region—agricultural, social, and medical—were closely linked in origin and development. It was found that attempts to solve any one of them alone could not be more than partially successful, and the conclusion reached was that the ideal solution would have to be radical, comprehensive, and on a large-scale regional basis.

The Landscape

The greater part of the governmental subdistrict (*cazá*) of Selemiya is a plain. Bounding it sharply on the west are low plateaus, capped by a level bed of basalt a few feet thick; to the southeast are ranges of hills, part of the Palmyrene group, to which the local collective name of Jebel Bil'as may be given.

The ground slope over much of the region is toward the town of Selemiya; drainage from an area of 620 square miles converges on the low flat land around the town. Because of the continuous subsurface flow, a perennial stream rises at Ain ez Zerqa, to flow 12 miles to the west to join the Orontes. All other perennial streams, however, are only a few hundred or thousand yards long and are used for irrigation; most of them rise in artificial underground channels. Most of the watercourses are *wadis*, dry or nearly dry for much of the year. In the hills these are steep, V-shaped valleys, on the plain generally wide, shallow, gravel-filled channels in gentle, open valleys.

Figure 2 gives a simplified indication of the configuration. Hydrologically, the strata may be simply grouped into the Cretaceous limestones

---

> Mr. Lewis, Scholar of St. Catherine's College, Cambridge, was in Syria during the war and is now principal instructor at the Middle East Centre for Arab Studies, Shemlan, Lebanon, a training center for British government officials in the Middle East.

p. 278

7:Lewis S-5 (ca. 1940-45) 1948 MD1 Syria MD1

133
[311]

FIG. 1—The Salamiya area in its general setting. The hills are frequently given the collective name of Jebel Bil'as. Isohyets are from Charles Combier: Aperçu sur les climats de la Syrie et du Liban, avec carte au millionième des pluies et vents, Délégation Générale de France au Levant, Beirut, 1945. Spelling of the place names here and in the text in general follows the (British) Permanent Committee on Geographical Names.

of the hills and the Eocene-Oligocene marl of the plain. The limestones are predominantly pervious dolomitic limestones, separated by more or less impervious beds of flint and marl. Winter rainfall runs off in the wadis or soaks into the ground and either is soon discharged at a lower level by temporary springs or seeps slowly toward the plain, assisted by the dip of the strata.

The marl of the plain is in its unaltered state impermeable, but usually it has been affected to a considerable depth by the percolation of water through cracks and fissures. In this way calcium carbonate and silica are deposited to depths of as much as 50 feet, and the whole character of the rock is altered.[1] It becomes crumbly, permeable, and water-bearing. Above this layer of rock a hardpan develops, ranging in thickness from a few inches to four feet, which is due to the concentration by capillary action of calcium carbonate and silica.

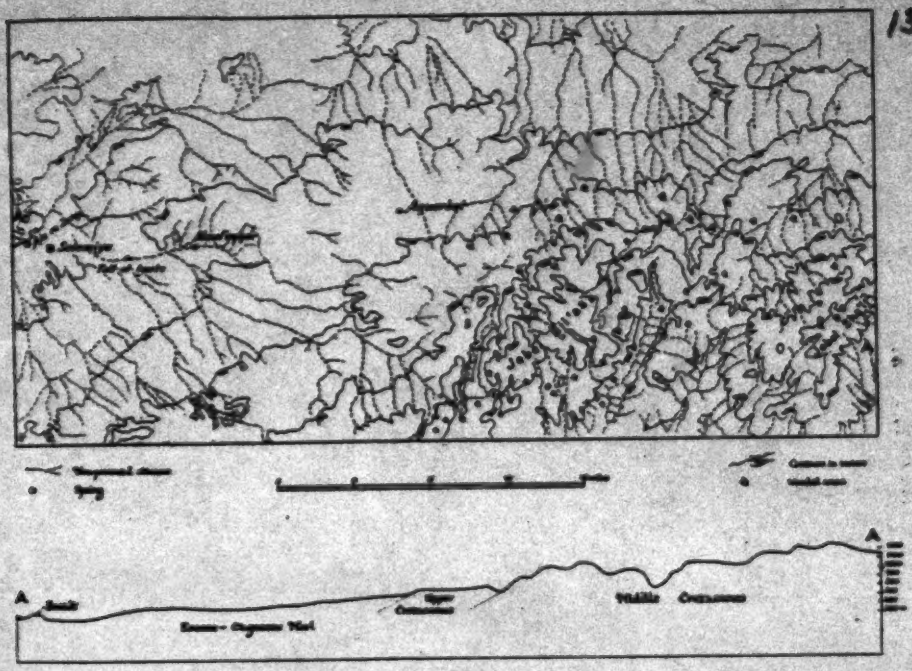
The region is one where the desert merges into the sown. The rainfall

[1] L. Dubertret: Lithological Map of the Eastern Border of the Mediterranean, 1:500,000, with notes translated by W. B. Fish [i.e. Fisher], Fighting French Delegation General in the Levant, Geological Section, Beirut, 1943.

113

7:Lewis S-5 (ca. 1940-45) 1948 MD1 Syria MD1

133



Section for A-A on map No.2

FIG. 2—Topographic map and cross section of the country east of Selemiya.

312

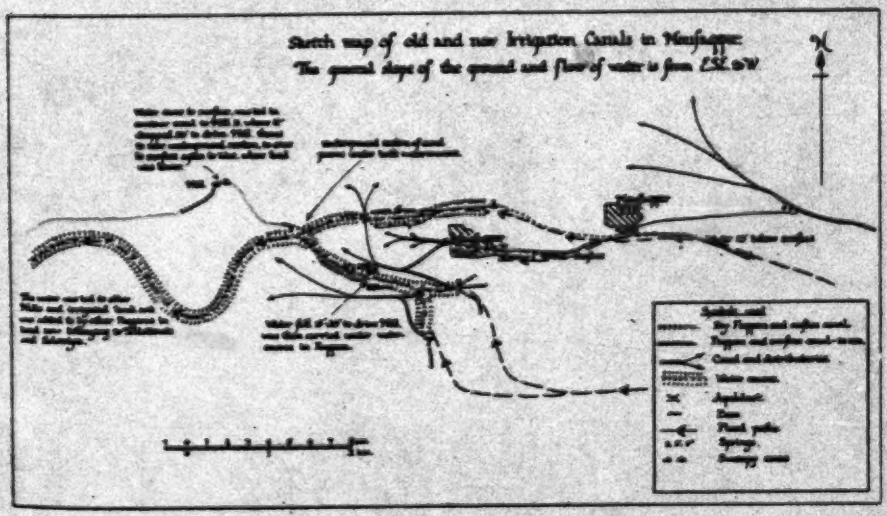


FIG. 3—The irrigation system of Moufaqqar, east of Selemiya (see Fig. 2).

7:Lewis S-5 (ca. 1940-45) 1948 MD1 Syria MD1

3/2
[133]

FIG. 4—Vertical section of a foggara. The diagonal shading represents the water-bearing level in the altered marl, below which is unaltered impervious marl. The gallery A to B taps the water-bearing layer at its upper end and end in the center. Water in the gallery is represented by the dashed line. The irrigated area extends from B to C. The vertical shading represents the part of the canal between steep banks.

FIG. 5—Upper part of one of the Moufaqqar canals (see Fig. 3). Photograph from a position corresponding to B above, where the canal is formed by steep banks. Parts of natural roof are formed by the hard pan, clearly distinguishable from the bed of crumbly altered marl below. Until 1945 the canal was semi-derelict, filled with mud, vegetation, and flood detritus (see foreground). When the clearing was completed, the canal was approximately doubled in depth and a strong stream of clear water flowed in the bottom. (Photograph by John Gough.)

was built, probably in the Roman period, to carry water from Selemiya to Apamea, more than 50 miles away. This was an exception, dug to carry drinking water to a city, but some of the canals which capture and supply irrigation water in the Selemiya plain are several miles in length; one, starting in Moufaqqar, was originally seven miles long. Others are only a few hundred yards in length.

The quantity of water delivered by the canals in use today is estimated

PART ONE

I. THE HISTORY OF SYRIA[1]

1

EVEN were there no Syrian people a Syrian problem would still exist. Syria owes its political importance less to the qualities of its population than to its geographical position. Before its history can be fully understood, it is necessary to grasp the nature of the land and its relation with the surrounding world.

Syria is part of a larger area which may be treated as a single unit, in the sense that the course of affairs in one part of it has always had a peculiarly close relationship with that in some or all of the other parts. The southern base of this area is the Arabian peninsula, bounded on the west by the Red Sea, on the south by the Indian Ocean, and on the east by the Persian Gulf. The west of the peninsula, the Hejaz and Yemen, is hilly and in parts fertile, and so too is a smaller area in the south-east; but the greater portion of the interior is fit only for pasturage, except in the oases. In the south, it is a sandy waste, in the centre, Nejd, a dry, hilly and often stony steppe. North of Nejd there is another belt of sand; and north of this belt is the dry steppe of the Syrian Desert, growing narrower as it goes northwards. Running in a semi-circle around the edge of the Syrian Desert is the 'Fertile Crescent', a belt of cultivable land bounding the area of pasturage. It may itself be divided into two parts. The western part is a land of mountain-ranges, valleys and plains; this is geographical Syria. The eastern part is a vast plain, created and maintained by the two great rivers, the Tigris and Euphrates, which run southwards through it, finally meeting and flowing together into the Persian Gulf; this is Iraq or Mesopotamia. The Fertile Crescent is bounded on the west by the Mediterranean Sea and on the south-east by the head-waters of the Persian Gulf. In the north and east it is hemmed in by mountain-ranges: to the north the Taurus Mountains, the southern part of the Anatolian highlands which stretch across Asia Minor, to the north-east the mountains of Kurdistan, and to the east the Persian plateau. Joined to the western part of the Fertile Crescent by the peninsula of Sinai, but separated from Arabia by the Red Sea, is the land of Egypt, the fertile valley of the Nile surrounded by sandy deserts.

[1] In Chapters I–IV the word 'Syria' is used to refer to 'geographical Syria' as defined in the Introduction.

131
25

BLACK SEA
CASPIAN SEA
ANATOLIA
KURDISTAN
MEDITERRANEAN
MESOPOTAMIA
Syrian Desert
Persian Gulf
EGYPT
NEJD
R. Nile
Arab al-Khali
HADRAMAUT
INDIAN OCEAN
NEAR EAST: Geographical Regions
Land over 1500 metres
High Land under 1500 metres

131 Thus the boundaries of Syria may be defined as the Taurus Mountains to the north, the Mediterranean to the west, Sinai and Hejaz to the south, and northern Mesopotamia and the Syrian Desert to the east. Its length is rather more than 500 miles, and the breadth of its cultivable area varies between 100 and 150 miles.

2

133 It is itself split up into several regions clearly marked off from one another by main lines of division running roughly from north to south, with subsidiary lines running from east to west. The first region is the Mediterranean coastal belt, in some places broad enough to be called a plain, for example the plain of Akkar, but in others no more than a narrow strip; [504] in general, it broadens as it goes south. Although it has few good natural harbours, it is studded with famous ports: Alexandretta, Latakia, Tripoli, Beirut, Sidon, Tyre, Haifa and Jaffa. East of it is a highland belt: the Amanus in the north, then the Jebel Ansariyah, rising to some 5,000 ft., then Lebanon, of which the peaks reach 10,000 ft., and then the Palestinian hills, bounded on the south by the arid district of the Negeb. This belt is scarred with the valleys of streams flowing westwards to the sea, and cut across by a number of gaps, through some of which rivers flow: the plain of Antioch, the gap between Tripoli and Homs and the plain of Esdraelon. East of these ranges runs a line of comparatively narrow depressions varying in character from north to south. In the north there are the plain of al-Amq, the Orontes valley and the Ghab marshes; south of them lies the Biqa' valley; then the broken country in which lie the sources of the Jordan; then the swampy district of Hulah; then the narrow valley of the Jordan, lying below sea-level, opening out at one point into the Sea of Galilee and ending in the Dead Sea; and finally the Wadi Araba, leading down to the Red Sea at Aqaba. A number of important rivers run for part of their courses along these depressions: the Orontes flowing north and then west, the Litani south and then west, and the Jordan south. Here also lie the important lakes of Syria: those of Homs and Hulah, the Sea of Galilee and the Dead Sea. The line of depressions is interrupted by the ridge of Baalbek, the watershed between the Orontes and Litani; and farther south is linked with the coastal plain by the Esdraelon Gap.

Farther east there lies another belt of highlands. In the far north it takes the form first of the Kurd Dagh hills, then of a plateau and a series of low ranges, south of which lies the range of Anti-Lebanon, facing Lebanon across the Biqa', and rising some 9,000 ft. above sea-level. South of Anti-Lebanon is Mount Hermon with its many valleys and its three peaks, the highest of which is over 9,000 ft. high. From Hermon the land drops into the Hauran plateau; south of it is the tableland of Transjordan, which itself ends in the steppe country of the northern Hejaz.

The northern plateau slopes eastwards until it reaches the valley of the Euphrates flowing south-east. The eastward slopes are in part cultivable land, but in part semi-desert and steppe, known sometimes as the 'Little Desert' to distinguish it from the Syrian Desert to the south of it. Around and across the Euphrates is a district known as the Jazirah, which is geographically part of Iraq but of which a portion lies within the political frontiers of the Levant States. It is a district of stony hills and plains, but fertile in the river valleys, those of the Euphrates itself and of its tributaries, the Balikh and the Khabur.

East of the Anti-Lebanon the country is somewhat different. There is no plateau sloping gently to a river valley, but the eastern flanks of the mountains lead down to a barren steppe, formed of stone and gravel, with sand-dunes and coarse vegetation: the Syrian Desert. In places the Desert comes up almost to the foot of the inner range; but in others it is held back by areas of cultivable land. One such is the Ghutah, the fertile land around Damascus, well wooded and well watered by its streams. To the south of it, but separated from it by a plain of lava, lies another cultivable region, the Hauran, a large basalt plateau open to rain-clouds coming from the Mediterranean through the Esdraelon Gap. In the east this plain rises into the hilly but fertile district of Jebel Druze, of which the peaks are 6,000 ft. above sea-level. South of the Jebel Druze, the highlands of Transjordan slope eastwards and die away in isolated hills.

While the general climatic régime is similar throughout, there is great variety of temperature and rainfall in consequence of the sharp differences of relief and position. In all parts the rainy season is from October or November to April or May; but the amount of rainfall varies greatly from one

T U R K
ALEPPO
EUPH
HAMA
LATAKIA
H O M S
DAMASCUS
DEBEL DRUZE
TRANSJORD.

END MAP (A)

S
L
133
181
491
489
496
538

END MAP (B)

14:International Bank S-5 (1954) 1955 MD1 Syria MD1

challenging task of fusing the positive elements of both its eastern and its western heritage into a cohesive whole.

Population and Land

According to official estimates, Syria at the end of 1953 had a population of about 3.65 million, including some 150,000 Bedouins who lead a nomadic or semi-nomadic existence. Although demographic statistics are far from adequate, it appears probable that the population has been growing at an annual rate of somewhere between 2% and 3% during the last decade. Most of the population is rural:[1] about 60% live in villages and towns of less than 10,000 inhabitants, and each of the two largest cities—Damascus, the capital, and Aleppo, the commercial center of the country—has a population close to 400,000. About 86% of the population are Moslem or belong to offshoots of the Moslem religion, and nearly all of the balance are adherents of a considerable number of Christian denominations.

As a country with an area of 181,337 square kilometers (72,234 square miles), about three-fourths the size of the United Kingdom, Syria cannot be said to be densely populated. While less than a third of the area is cultivable, the proportion of the population to the land already under cultivation compares favorably with that of other countries in the Near and Middle East. In Syria there is one hectare[2] of cultivated land per inhabitant, or about 10% more than in Turkey and Iran, twice as much as in Greece and Iraq and eight to nine times as much as in Egypt.

There is still plenty of land available in Syria but water severely limits its utilization. The country lies to the leeward of mountain ranges in the west and north which intercept much of the rainfall. Except for the coastal region of Latakia province, Syria is largely cut off from the rain-bearing winds of the Mediterranean by mountains, the Djebel Ansariya (Alaouit mountains) in Latakia, and, farther south, after the intervening Tripoli-Homs gap, by the twin ranges of the Lebanon and Anti-Lebanon which in turn give way to the Hermon range. Thus the area which can support rain-fed cultivation is confined to a rather narrow belt extending roughly like a crescent from the Hauran in the south northward to Aleppo and then eastward along the Turkish frontier. Fortunately for Syria, its

[1] See Annex C, p. 292.

[2] A hectare = 2.471 acres.

14:International Bank S-5 (1954) 1955 MD1 Syria MD1

311 rainfall is supplemented by the water brought down from the mountains
133 by its rivers. The principal of these is the Euphrates which has its headwaters in Turkey and flows in a generally southeasterly direction across Syria into Iraq. Together with its most important tributary, the Khabour, which also rises in Turkey, it accounts for 90% of the total annual flow of all Syrian rivers. In the west the largest river is the Orontes which is fed by springs from the Lebanon and Anti-Lebanon ranges and flows northward through the marshy area known as the Ghab into Turkey. Farther south the Barada river, rising in the Anti-Lebanon, supplies life-giving water to the fertile Ghouta oasis around Damascus. In the extreme south the Yarmuk river flows along the Jordanian frontier into the Jordan river. Although the flow of these rivers is highly seasonal, it is on the effective utilization of their waters that much of the future development of Syria's agriculture depends.

Principal Regions

631 Administratively Syria is divided into nine *mohafazats* or provinces, each in charge of a *mohafez* or governor; the province is in turn divided into *qadas* or counties headed by a *kaimakam;* and the county is further subdivided into *nahiyes* or townships in charge of a *mudir.*

244 Of greater significance, however, are the principal economic regions.
438 Farthest south are the adjoining regions of the Hauran and Djebel Druze.
311 The Hauran plain, an area of rather high but apparently declining fertility, has long been known as a granary, even in Roman times. Its principal crop is wheat, but barley, maize, sorghum and pulses are also important. To the east rises the Djebel Druze, a basaltic dome, where the Druzes, a proud and independent people, eke a bare living from the pockets of fertile soil in their mountains. Here the pressure of population on the land is acute. Agricultural holdings in the Hauran and Djebel Druze are predominantly small. There is little irrigation, and annual rainfall, averaging less than 12 inches, is barely adequate for dry farming. Sharp fluctuations in rainfall frequently make farming precarious. One of the principal problems of this region is the scant supply of underground water even for drinking.

To the northwest of the Hauran lies the higher, rolling Julani plateau stretching toward the Hermon range. This stony region is suitable only for grazing and, to some extent, for orchards. To the north a narrow band

14:International Bank S-5(1954)1955 MD1 Syria MD1

II IRRIGATION AND RECLAMATION

The extension of irrigated land is of vital importance in a country like Syria, where large potentially fertile areas yield little or nothing because rainfall is inadequate and where nearly all of the cultivable area produces no summer crops because no rain falls from spring to autumn. It has become even more imperative with the shrinkage in the area of good rainfed land which can still be taken under cultivation. Thus irrigation is the principal means for expanding the cultivated area, increasing and stabilizing yields and diversifying agricultural production by developing summer crop cultivation.

Existing Irrigated Areas

At present about 400,000 hectares of land are probably already under irrigation. Of these, approximately 250,000 hectares are irrigated by pumps drawing water principally from rivers but also from wells. Most of the river pumps are located in the valley of the Euphrates and its tributary, the Khabour, while by far the greater number of pumps drawing on underground water is in the provinces of Hama and Aleppo. Except for small areas still supplied by animal-driven *norias* (water wheels), the remainder is irrigated by gravity flow from rivers, springs and *foggarahs* (underground ducts). Only 48,000 hectares are covered by government irrigation schemes, including the Homs-Hama scheme providing a rather inadequate supply of water from the Homs lake to 22,000 hectares; the Mzerib project in the Hauran, which irrigates 2,500 hectares from the springs feeding the Yarmuk river; the Tell Maghass scheme on the Khabour, which provides for 8,500 hectares but is not completed; and the Matkh project covering 15,000 hectares south of Aleppo, which receives a wholly inadequate supply of water from the Kouek river during the dry season when most of the water in the upper reaches of the river is taken by Turkey for irrigation.

The possibilities of additional irrigation are by no means limitless. Except for the Euphrates, Syria has no large river with a substantial flow during the summer dry season. In fact the Euphrates accounts for 83% of the aggregate annual flow of Syria's rivers. Thus the available water supply may set a limit of 400,000 to 600,000 hectares on the additional area which can be irrigated. In the last analysis, however, the upper limit will be determined by the division of the Euphrates water with Iraq, which is in the

THE VALLEY OF THE ORONTES

The study of the coastal region must be extended to the valley of the Orontes which, geographically and historically, forms its eastern limit. A natural channel between the Alawite chain and the limestone plateau, it forms part of the long depression running from south to north behind the Lebanon. Scattered along the course of the Orontes, too, are the strong citadels by which the Arabs sought, successfully, to stem the advance of the Crusaders—Baalbek, Homs, Hama, Caesaria, Kalat-el-Mudik—all interesting and beautiful, in varying degrees.

Two very different sites must be mentioned.

On the vast field of ruins of Apamea, overlooking the marshy plain formed by the river, the scattered fragments of that ancient city's monuments are still to be seen. It is being explored by the Belgian expedition which has been led in turn by F. Mayence and H. Lacoste. The ground is strewn with plinths, entablatures, and the shafts of wreathed columns. The line of the great colonnade and the ground plans of various buildings are still easily recognizable.

The charm of Hama, with its green gardens and high, wailing waterwheels, must not distract us from two interesting monuments, well worthy of close study: the Great Mosque, with its two minarets of different periods, its arcaded courtyard and white domes, still showing signs of what it was at an earlier date, and the Azem Palace, with the graceful arches of its upper courtyard, its ornamented windows, its great domed hall of state (dating from 1778), lavishly although a little too heavily decorated. The atmosphere of the old town is a happy foil to the life on the banks of the river and helps to give Hama great attraction for the visitor.

ANCIENT SITES

However beautiful or famous they may be, the ancient sites of the coastal region need not here be dealt with at length in

16: Collart et al G-5 (1953) 1954 MD1 Syria MD1

N THE NORTH

CHARACTERISTICS OF CERTAIN SITES

The region of the limestone plateau, which is bounded on the west by the cleft formed by the valleys of the Orontes and the Afrin, includes a few fertile plains, but taken as a whole, it is simply a vast mountainous tract of bare rock, fissured and worn. The sites are scattered on the ridges and slopes and only by building water-tanks was it possible for the people to maintain life. They can be divided into three groups: to the north, the Jebel Seman; in the centre, the Jebel Barisha and the Jebel el-Ala; to the south, the Jebel Zawiyé or the Jebel Riha. In certain places there are so many ancient centres that their ruins can be seen on all sides.

These towns frequently grew up around a monastery. The monastic life was widely practised in Syria at an early date and huge groups of buildings were put up to meet religious needs. Every convent was also a centre of agricultural work requiring additional buildings, as at Breig and Deir Turmanin. Some were also places of pilgrimage, where inns, bazaars and hostelries were built for the pious who flocked thither, as they did, for instance, to the convents of Qalaat Seman and Deir Seman, hallowed by the memory of the famous Stylite.

In other cases farms, a church and oil presses, sometimes covering a large area, grew up around an agricultural town; Bamuqqa Qirqbise and Behyo are excellent examples. Elsewhere, there were villages with substantial houses, as at Réfadé and Kafer Nabo, or with more modest dwellings, as at Qatura and Taqlé. Everywhere, the remains of churches can be distinguished amidst the debris of ruined buildings. In the vicinity, the variety of monuments to the dead is no less worthy of note.

Two sites are remarkable for their exceptional size and the variety of buildings found there: Brad, in the north, and El-Bara, in the south. Situated on the denuded plateau which forms the northern part of the Jebel Seman, Brad looks like a small town; in fact, it was the administrative and commercial centre of a very large region; it grew up around the nucleus of an ancient settlement (interesting remains of third-century baths and two large churches dating from 399-402 and 561, respectively) to reach its greatest size in the seventh century. El-Bara,

133 361 172 361 172 P. 29 C

16: Collart et al G-5 (1953) 1954 MD1 Syria MD1

DEAD CITIES IN THE SOUTH

THE HAURAN AND THE JEBEL DRUZE

933 Black is the dominant colour in the basalt country of southern Syria. The eruptive rocks strewn over the soil give the landscape a highly distinctive character; black are the stones, black the buildings, black the sculptures.

The whole region was formerly known as the Hauran, but today this name is applied only to the western portion, as distinct from the eastern part, the Jebel Druze. The same distinction is to be found in the differing aspects of the two portions. To the west, as far as the eye can see, lies an enormous fertile plain which produces abundant crops of wheat and barley. To the east, rises rugged mountainous country. These mountains have the characteristic contours of extinct volcanoes, but although they are fairly high (from 1,500 to 1,700 metres), they do not appear so, for the ground rises gradually and the altitude of the foothills is always over 1,000 metres.

172 In this part of the country, the building of monuments on a large scale began with the establishment of the Roman Province of Arabia, in A.D. 106, by Trajan's legate, Cornelius Palma, and was encouraged by the Antonines, Septimius Severus and Philip the Arab. It continued during the Christian period, for there were numerous bishoprics from the time of the first councils onwards and many churches and monasteries were then built. After the Islamic conquest (636), only the towns of Bosra and Salkhad remained of any importance, owing to their strategic position; their main buildings (military and religious) date from the twelfth and thirteenth centuries.

The abandonment of the ancient sites, however, rapidly resulted everywhere in the ruin of their monuments. Where there had been most villages, there they were most completely deserted.

SITES AND MONUMENTS IN THE JEBEL DRUZE

361 172 Two of the many sites, Chahba and Qanawat, have fairly large groups of monuments.

P. 328

PHYSICAL FEATURES

طول حدود الجمهورية السورية
BOUNDARIES OF THE SYRIAN REPUBLIC

131

Table No. 1 جدول رقم ١

Coasts and Neighbouring Countries	Length of boundary kms. طول الحدود بالكيلو متر	per cent of total length % النسبة الى طول الحدود بالمئة	الشواطئ والبلاد المجاورة
Total	2,374	100.0	المجموع
The Mediterranean Sea	173	7.6	البحر الابيض المتوسط
Turkey	808	35.5	تركيا
Iraq	592	26.1	العراق
Transjordan	355	15.5	شرق الاردن
Palestine	70	3.1	فلسطين
Lebanon	279	12.3	لبنان

Source : Ministry of Public Works المصدر : وزارة الاشغال العامة

مساحة البحيرات الرئيسية في الجمهورية السورية
AREA OF PRINCIPAL LAKES IN THE SYRIAN REPUBLIC

133

Table No. 2 جدول رقم ٢

Name of Lake	Location	Area km2 المساحة كم٢	موقعها الجغرافي	اسم البحيرة
Qattineh	Near Homs	60	قرب حمص	قطينة
El-Ghab	" Jisr-esh-Shoghour	300	قرب جسر الشغور	الغاب
Jabbul	" Aleppo	150	قرب حلب	جبول
Otaibeh	" Damascus	64	قرب دمشق	عتيبة
Hijaneh	" Damascus	24	" "	هيجانة
Jeirud	" Damascus	15	" "	جيرود
Mussirib	" Dir'a	1	قرب درعا	مزيريب
Khatuniyeh	" Hassakeh	2	قرب الحسكة	خاتونية

Source : Ministry of Public Works المصدر : وزارة الاشغال العامة

احوال البلاد الطبيعية

الجبال والقمم الرئيسية في الجمهورية السورية

PRINCIPAL MOUNTAINS AND PEAKS IN THE SYRIAN REPUBLIC

133

Table No. 3. جدول رقم ٣

Mountains	Peaks	Height in meters	القمم	الجبال	الطو بالامتار
The Anti-Lebanon «Qalamun Sinir»	Mt. Hermon	2,814	جبل الشيخ	سلسلة جبال لبنان الشرقية «قلمون سنير»	
	« Mun	2,029	جبل موس		
	« Halimah Qara	2,464	جبل حليمة قارة		
	« Straqif	2,424	جبل الشقيف		
	« Gharbi	1,950	الجبل الغربي		
	« Mazar	1,624	جبل الزار		
Jabal-ad-Druz	Tal Ghaimah	1,800	تل غيمه	جبل الدروز	
	« Hawan	1,765	تل حوران		
	« Qaleib	1,686	تل القليب		
	« Sha'af	1,624	تل شعف		
	« Al Masih	1,545	تل المسيح		
Mt. An-Nusairiya	Shaufa	1,562	شوفة	جبل النصيرية	
	Al-Wili Khalifa	1,436	الولي خليفة		
Mt. Sharqi «Sharqi Qalamun»	Mt. Qatus	1,404	جبل قاطوس	الجبل الشرقي «شرقي قلمون»	
	« Zebeldiya	1,401	جبل زبيدة		
	« Um-Ruwaq	1,186	جبل ام رواق		
Mt. Bal'as	Mt. Hawit-ar-Ras	1,320	جبل حويط الراس	جبل البلعاس	
	Tawi al-Bal'as	1,096	طاوي البلعاس		
Mt. Abdel Aziz	Al-Ghurra	920	الغرة	جبل عبد العزيز	
	Mt. Baida	631	جبل البيضا		

Source : Ministry of Public Works المصدر : وزارة الاشغال العامة

PHYSICAL FEATURES

طول الانهار الداخلة ضمن اراضي الجمهورية السورية مع معدل سيبها السنوي

LENGTH OF RIVERS WITHIN SYRIAN TERRITORY, TOGETHER WITH AVERAGE FLOW

● 133

Table No. 4

جدول رقم ٤

Rivers	Length in kms: Total	Length in kms: Length within Syrian territory	Average flow m3/sec.	Maximum flow m3/sec.	اسم النهر
	طوله بالكيلو متر: الاجمالي	طوله بالكيلو متر: ضمن الاراضي السورية	معدل سيبه السنوي م٣/ث	سيبه في ذروة الفيضان م٣/ث	
Euphrates	2,330	675	730.0	5,200	الفرات
Al-Khabur	480	480	82.0	200	الخابور
Aj-Jaghjagh	124*	100	3.0	6	الجغجغ
Al-Balikh	105	105	6.0	23	البليخ
As-Sajour	106	45	3.0	36	الساجور
Al-'Asi	571	225	22.0	450	العاصي
'Afrin	148	85	8.0	750	عفرين
Quwiq	136	110*	0.5	60	قويق
Al-Kabir-ash-Shimali	80	56	3.0	150	نهر الكبير الشمالي
Sinn	6	6	12.0	22	نهر السن
Baradi	71	71	7.0	35	بردى
A'waj	66	66	2.5	15	الاعوج
Al-Yarmuk	57	47	7.0	180	اليرموك

Source : Ministry of Public Works

* Corrected figures

المصدر : وزارة الاشغال العامة

(*) ارقام معدلة

3:Royal Institute of International Affairs U-4 (no date)1954 M1 Middle East
SYRIA MDI
LEBANON MEI

Chapter Ten

SYRIA AND LEBANON

The Land and the People

The area of the present Syria and Lebanon lies to the north of Arabia Deserta and is the western horn of the Fertile Crescent. The two republics do not enclose within their boundaries a natural geographic entity and their climate and topography are best studied in relation to the surrounding countries;[1] but within the political boundaries of the two states, the following geographical divisions may roughly be distinguished:

(1) *The Coastal Strip.* This is about twenty miles wide near Latakia and rather less just north of Tripoli, but in some places disappears and the mountains meet the sea. Olives, bananas, citrus, and vegetables are cultivated intensively near Beirut.

(2) *The Mountains.* Starting from the north, the first coastal mountains are the Jebel Ansariya (also known as the Alawi Mountains) which average 4,000 feet and are well populated on the western slopes. To the south is the Homs–Tripoli gap and then starts the Lebanon range with peaks of over 10,000 feet. Even on the upper slopes of this range water is plentiful, there is close cultivation, and the villages and towns are prosperous. Near Beirut are situated the mountain resorts to which most of the city workers move each night when the summer brings its humid heat. The interior ranges of mountains lying parallel to that of the Lebanon are the Anti-Lebanon (between Homs and Zahle) reaching over 7,000 feet and the range of Hermon (between Zahle and the Israel border) which reaches 9,200 feet. Water and cultivation are far less plentiful on these than on the coastal mountains. Farther inland still and to the south of Damascus lie the Leja, a bleak area of igneous rock, and the Jebel Druze, which reaches 5,000–6,000 feet and lies north of the Jordan border.

(3) *Plains and Plateaux.* Hardly any of the territory of Syria and Lebanon lies less than 700 feet above sea-level and south of Hama almost all the land is over 1,600 feet. The richest agricultural land is on fairly high ground and forms part of a

[1] See W. B. Fisher, *The Middle East; a Physical, Social, and Regional Geography* (London, Methuen, 1950).

3-Royal Institute of International Affairs U-4 (no date)1954 M1 Middle East
SYRIA MD1
LEBANON MEI
S
L
102

S
L
133
[24]

crescent which (starting from the Iraqi border) comprises the Jezira, the countryside of Aleppo, Homs, and Hama, and the fertile and beautiful Biqaa valley. The cultivation of cotton and cereals is particularly successful in the north-eastern corner of Syria where there has been great general development in the last five or six years. From Homs one road leads south to the Biqaa valley which continues between the two mountain ranges of Lebanon and Anti-Lebanon, past Zahle to the southern border of Lebanon. Farther inland is the road to Damascus which passes to the east of the Anti-Lebanon over the Qalamun plateau. This is mostly barren land, reaching over 2,000 feet; the areas of cultivation usually need more water, but suffer occasionally from bad floods. The oasis of Damascus is known as the Ghouta and there every drop of water in the two rivers is made use of, by an ancient system of canals which follow the contours and provide water lavishly as they gradually lose height. Between Damascus and Jordan lies the Hauran plateau much of which is about 2,000 feet above sea-level; here there is cultivation of cereals but few trees are now left and there is insufficient water to ensure good crops each year.

(4) *The Desert.* To the south and to the east of the Fertile Crescent there spreads a desert that extends southward for over

3:Royal Institute of International Affairs U-4 (no date)1954 M1 Middle East
SYRIA MDI
LEBANON MEI

twenty degrees of latitude. The desert in Syria is of rock and gravel more than of sand, and there are hills rising above 3,000 feet both north and south of Palmyra; more than a third of the total area of Syria is steppe or desert.

Rivers

The Orontes flows from the northern part of the Biqaa through the lake of Homs (which holds about 260 million cubic yards of water) to Hama and through the Ghab depression to Turkey. The Litani rises not far from the Orontes but flows at first southward and later west through a deep gorge in the Lebanon mountains into the sea between Tyre and Sidon. The Euphrates runs through Syria for about 430 miles and has, as tributaries from the north, the Balikh and the Khabur. It is on the Euphrates and its tributaries that there is the best prospect of developing hydro-electricity and irrigation.

Climate[1]

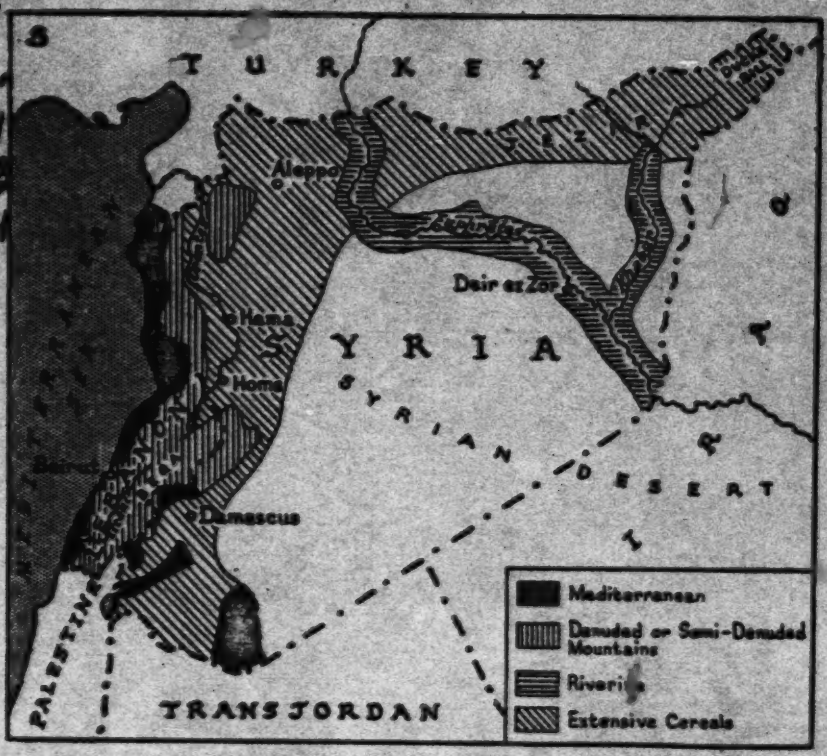
Over this diverse scene the temperatures vary in the year from below freezing to above 100°F., and on the same day it is possible to ski near the cedars of Lebanon and swim in the sea at Beirut. The rain, which in most places comes between November and February, varies from almost nothing in the desert to about 40 inches a year in the mountains. In the coastal strip the winters are not severe but there is high humidity and small diurnal variation in the summer and this makes the season seem unpleasant and prolonged. In the mountains the snow lies on the topmost peaks for most of the year and the road from Beirut to Damascus is blocked by snow at times in most winters; in the summer the days are hot but the nights are cool enough to draw up to the mountains most of the inhabitants of Beirut. The plateaux and desert have an inland climate with low humidity and higher extremes of heat and cold. Aleppo has greater extremes than Damascus but in both cities there is a distinction between the four seasons: spring from mid-March to mid-May, summer from mid-May to the beginning of October, autumn in October and early November, and winter from November to March.

The People

Official statistics showed that in 1951 the populations of Syria and of Lebanon were 3,329,137, and 1,303,941 respectively. Over half the inhabitants are engaged in agriculture, about half a million are nomads, and the rest live in towns. The

[1] See table, below, p. 501.

25: Warriner S-5 no date 1948 MI Middle East
Lebanon ME1
Syria MD1



SYRIA AND LEBANON: AGRICULTURAL AREAS

GRAIN PRODUCTION IN SYRIA AND LEBANON, 1934–43

	Tons	Cwts per acre
Wheat		
1934	443,000	6·3
1935	504,000	7·5
1936	427,000	6·3
1937	468,800	6·6
1938	644,300	9·0
1943	624,280	7·3
Barley		
1934	292,100	7·8
1935	347,100	9·5
1936	308,100	8·2
1937	266,300	6·5
1938	383,400	9·0
1943	330,485	8·2

With a total rural population of about 2·8 million in 1943–4, the production of grain per head amounts to only 3·4 quintals or 6·4 hundredweights. Thus the problem for Syria is to in-

29:Dunn S-4 (1952)1952 MI Middle East
Syria MDI

CHAPTER II

COTTON IN SYRIA

000 One of the oldest countries in the world with a new-found independence and a new government, fired with ambition and restrained with pride, Syria is struggling against tradition to modernize its practices and remold its economy. A strange contrast of the old and the new is everywhere apparent. The struggle to change is sometimes painful and often frustrating.

Since the country was created only nine years ago, conditions have been hectic and chaotic, marked with military uprisings and three coup d'etats, the last of which brought in the present military dictatorship last year.

Nevertheless, progress has been remarkable. With large profits made during and after the war, the Syrians have done more in modernizing their homes, farms, and factories than had been done in a thousand years before. They have made conspicuous improvement in their roads, irrigation system, schools, and health programs.

Still the standard of living of the people as a whole is miserably low, and their mode of life for the most part is as primitive as it was in the time of Christ.

BACKGROUND

133 311 The resources of Syria are abundant, capable of supporting an economy of a much higher order and a much larger population. This fairly large country with an area of about 72,000 square miles (practically the size of the State of Oklahoma) is located along the eastern shores of the Mediterranean Sea.[27]

The eastern half of Syria is desert, broken only by the Euphrates River and its tributaries. In the west, stretching from the two principal mountain ranges, is a series of broad, fertile plains. There is a small coastal plain along the shores of the Mediterranean. The principal limitation is lack of water. Utilization of water for irrigation has increased ten-fold, but the potential from the Euphrates and Orontes River systems is much greater.

162 212 The population is estimated roughly at 3.5 million, of which three-fourths are rural and directly dependent on agriculture.[28] In the time of the ancients these lands supported two or three times as many people. Most of the people today are Moslems. Although more emphasis now is being placed on education, about three-fourths of the people are still illiterate.

---

[27] *Statesman's Yearbook, 1949*, p. 1348.

[28] *Report of the United States-Syria Agricultural Mission*, United States Department of Agriculture, 1947, p. 7.

63:Simmons et al G-5 (1941-1951) 1954
M1 Middle East
SYRIA MD1

6

Syria

GEOGRAPHY AND CLIMATE

The Republic of Syria was constituted in 1943, when France relinquished control over the mandated territories of Lebanon and Syria. Geographically and ethnically Syria forms an integral part of the eastern Mediterranean region, but politically it has undergone progressive modification since the dismemberment of the Ottoman Empire following World War I. Considerable confusion in terminology arises from the fact that the entire area was then designated as Syria. It was mandated to France by the League of Nations in 1923 as the separate territories of Syria and Lebanon. Subsequently, for a brief period the region was divided into the autonomous "Levant States" of Lebanon, Syria, Latakia and Jebel ed Druz. With the annexation of Latakia and Jebel ed Druz as provincial units in 1936, and the cession of the Alexandretta district to Turkey in 1939, the present boundaries of Syria were established. The country now includes an area of approximately 71,000 square miles. In the west, it has a coastline of about 104 miles on the Mediterranean Sea and, to the south, common frontiers with Lebanon and northern Israel. Inland, it is surrounded by Turkey on the north, Iraq on the east and the southeast, and Jordan on the south.

The interior of the country is essentially a semiarid plateau, sloping to the basins of the Euphrates and the Tigris, and backed by chains of mountains in the north and the west. The highlands on the Turkish border are not well defined, but those in the west differentiate distinct geographic regions. In the north, the Nusairiyeh mountains, with elevations up to 5,000 feet,

642 131 648 101 649 131 133

p. 135(A)

63:Simmons et al G-5 (1941-1951) 1954
MI Middle East
SYRIA MD1

separate the narrow coastal plain from the Orontes river valley and the plateau region of the interior. Farther south, the Anti-Lebanon range rises to peaks of almost 9,000 feet on the Lebanese frontier, and spreads in spurs eastward toward the Syrian Desert. The inland slopes are mainly barren steppe, which merges with the desert, except where oases provide stretches of cultivable land. In the southwest, the lofty peaks of Mount Hermon descend to the fertile Hauran plateau, which receives the moisture-laden winds from the Mediterranean across the gap of the Esdraelon plains.

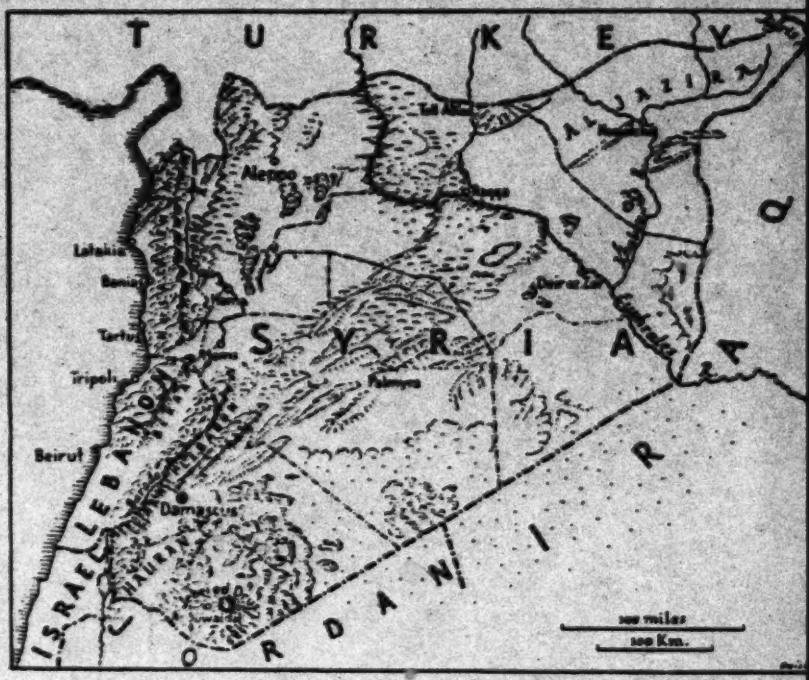
With the exception of the Euphrates, the rivers of Syria are relatively short, but all are vital to the agricultural life of the country. The Euphrates, from its source in the mountains of eastern Turkey, flows diagonally for 420 miles across the northern plateau toward the Iraqi border. The triangular-shaped sector cut off by the river is largely undulating steppe, but extensive [311] areas of irrigable land are found along its banks and those of the tributary systems of the Khabour and the Belikh. The northeast corner, watered by the Khabour River and its tributaries, comprises the region known as the Al Jazira, which was formerly an important granary of the Roman Empire. The Orontes River rises in the Bekaa valley in Lebanon and flows northward across the plains of Hama and Homs and through the Ghab marshes before turning west to the Mediterranean in Turkish territory. The Barada and its tributaries, which are fed by subterranean springs in gorgelike valleys on the eastern slopes of the Anti-Lebanon mountains, water the Al Ghouta, an oasis

p. 135(B)

68-Simmons et al G-5 (1961-1981) 1984
M1 Middle East

SYRIA MD1

102
133



p. 136

89:Simmons et al G-8 (1941-1951) 1954
M1 Middle East
SYRIA MD1

of almost 36 square miles to the east and the south of Damascus. Since ancient times the prosperity and the beauty of the city have been influenced by the Barada River, earning for it the name of the "River of Gold."

Governed by the proximity of the Mediterranean and the desert, wide variations in climatic conditions are encountered in different parts of the country. In general, the rainfall decreases in volume toward the interior and from northwest to southeast. Except on the seaward slopes of the northwestern highlands, the annual precipitation falls in the period from November through May, and is usually concentrated within a few days of each month. The average rainfall varies from 30 inches a year in the coastal region to less than 5 inches on the fringes of the desert. In the years 1938-50, the total precipitation recorded annually at Aleppo ranged from 12 to 33 inches, and at Damascus, from 5 to 11 inches. Similarly, while the moderating effects of the Mediterranean are felt along the coast, wide gradations in temperature are common in the interior. The winter temperatures inland normally average above freezing, but frosts and light snows may be encountered during the coldest months, in January and February. The summers are hot and dry, with temperatures approaching 100° F., and often 110° F., toward the east in July and August. The daily range, which approximates 15 to 20° F. in the winter, increases to around 30° F. in the summer. In the northeastern regions and near the desert, the hot, dry, sand-laden *sirocco* blows at irregular intervals, with greatest intensity during the early summer. In 1949, the mean temperature at Damascus was about 59° F.; the mean maximum temperature, 73° F.; and the mean minimum temperature, 44° F. The corresponding temperatures at Aleppo were 63° F., 73° F. and 52° F., respectively. No comparable temperature readings for Deir ez Zor and the towns in the eastern provinces were available.

p. 137(A)